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PRE-APPEAL BRIEF REQUEST FOR REVIEW		Docket Number (Optional) SCS-124-1138
Application Number 10/560,071		Filed December 9, 2005
First Named Inventor ANDERTON		
Art Unit 2884		Examiner Y. Green

Applicant requests review of the final rejection in the above-identified application. No amendments are being filed with this request.

This request is being filed with a notice of appeal.

The review is requested for the reason(s) stated on the attached sheet(s).
Note: No more than five (5) pages may be provided.

I am the

☐ Applicant/Inventor

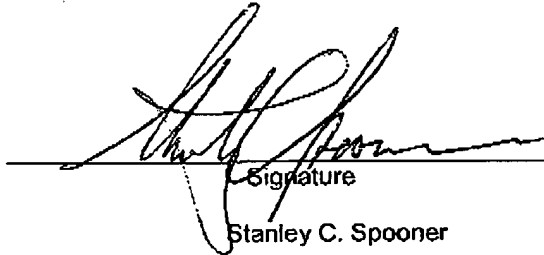
☐ Assignee of record of the entire interest. See 37 C.F.R. § 3.71. Statement under 37 C.F.R. § 3.73(b) is enclosed. (Form PTO/SB/96)

☒ Attorney or agent of record 27,393
(Reg. No.)

☐ Attorney or agent acting under 37CFR 1.34.
Registration number if acting under 37 C.F.R. § 1.34 _____

NOTE: Signatures of all the inventors or assignees of record of the entire interest or their representative(s) are required. Submit multiple forms if more than one signature is required, see below.*

☒ *Total of 1 form/s are submitted.


 Signature
 Stanley C. Spooner

 Typed or printed name

 703-816-4028
 Requester's telephone number

 August 1, 2008
 Date

This collection of information is required by 35 U.S.C. 132. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.11, 1.14 and 41.6. This collection is estimated to take 12 minutes to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Mail Stop AF, Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

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**STATEMENT OF ARGUMENTS IN SUPPORT OF
PRE-APPEAL BRIEF REQUEST FOR REVIEW**

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The following listing of clear errors in the Examiner's rejection and his failure to identify essential elements necessary for a *prima facie* basis of rejection is responsive to the Final Rejection mailed May 1, 2008 (Paper No. 20080428).

The Examiner is reminded that the Court of Appeals for the Federal Circuit has held that "the PTO has the burden under Section 103 to establish a *prima facie* case of obviousness." *In re Fine*, 5 USPQ2d 1596, 1598 (Fed. Cir. 1988). "It can satisfy this burden only by showing some objective teaching in the prior art or that knowledge generally available to one of ordinary skill in the art would lead that individual to combine the relevant teachings of the references."

The following table lists various claimed structures and structural interrelationships and indicates where these are or not disclosed in the cited prior art references.

<u>Claim 1 limitations</u>	<u>Lillington (WO 00/14587)</u>	<u>Nikolov (USP 6,876,784)</u>
"Millimeter Wave (MMW) detection apparatus"	Yes	No – actually teaches visible light wavelengths Also, not a detector, only a beamsplitter
"polarizing element [supported] on said first convex surface [of said corrector element]"	No – Examiner suggests this would be obvious – but without any support or suggestion	No – No allegation that the polarizer is supported by a convex surface
Polarizer "arranged to . . . focus and selectively reflect radiation of a second polarization . . ."	No – Examiner admits this is missing (Final Rejection, page 3, §6)	No – Col. 6, lines 38-41 "reflected incident beam 162 and the transmitted incident beam 164 combine to form a composite depolarized output beam 166" No focusing!
"said first convex surface is conformed with said polarizing element"	No – Examiner suggests this would be obvious, but provides no support for contention (Final Rejection, page 3, §6)	No – No need to conform a correlator with a polarizer on a beam splitter.

Error #1. The Examiner fails to demonstrate where any prior art reference teaches an optical corrector "arranged to support the polarising element upon said first convex surface thereof"

Instead of specifically identifying any portion of a prior art reference disclosing the claimed feature, the Examiner merely concludes that it would be obvious to use the optical correlator as a means of support for the polarizer. However, this conclusion is completely unsupported by any evidence of record.

The only "evidence" the Examiner cites is that "there is no fundamental incompatibility" between the correlator and the polarizing elements in Lettington which would prevent their combination. However, the fact that there is no reason not to combine them is not the test of obviousness as set out in most recently in *KSR*. The burden is on the Examiner to provide some reason for modifying the prior art reference and here the Examiner has not done so. All elements can certainly be combined in some manner, but assuming that fact does not render obvious all possible combinations of elements.

Moreover, the Examiner's claimed combination of elements restricts the curvature of both the polarizer and the optical corrector to be the same. The inventors realized that a suitably good optical system could be produced and that the optical corrector could carry out the dual function of also physically supporting the polarizer. The Examiner has not provided any evidence which suggests this element interrelationship, either in the Lillington reference or in the Nikolov reference. Additionally, the Examiner appears to be ignoring the fact that Nikolov, in teaching its perpendicular planar surfaces, would lead one of ordinary skill in the art away from a corrector element having a convex surface or the mounting of a polarizing element on the convex surface as required by the claim.

The Examiner's conclusion regarding a polarizing element being supported on a convex surface of the corrector element is simply not disclosed in any prior art reference and there is no reason this combination would be obvious in view of the cited references.

Error #2. The Examiner fails to demonstrate where the prior art references disclose Applicants' claimed polarizer "arranged to . . . focus and selectively reflect radiation of a second polarisation"

The Examiner admits in the paragraph bridging pages 3 and 4 of the Final Rejection that "Lettington et al. do not disclose the polarizing element being capable of focusing the second reflected radiation." This admission is very much appreciated.

The Examiner appears to suggest that Nikolov teaches "that the radiation . . . is reflected and focused." Actually, the Nikolov reference teaches the direct opposite, in that planar surfaces are provided which do not provide focusing of any beam. Moreover, Nikolov at column 6, lines 38-41, specifies that the "the reflected incident beam 162 and the transmitted incident beam 164 combine to form a composite depolarized output beam 166 having both polarization states." Thus, there is no disclosure in Nikolov of any focusing being accomplished by a polarizer, let alone a polarizer which focuses and "selectively reflects radiation of a second polarisation."

Inasmuch as the Examiner has failed to meet his burden of establishing that each claimed element and each claimed interrelationship between elements is disclosed in the Lettington/Nikolov combination, there is simply no *prima facie* case of obviousness.

Error #3. The Examiner fails to demonstrate where the prior art teaches "said first convex surface is conformal with said polarizing element"

While this claim 1 limitation is similar to the statement regarding the polarizing element being supported on the first convex surface, the previous structural recitation doesn't necessarily require that the first convex surface conform with the polarizing element – it merely

requires that the polarizer be supported by the convex surface. The last clause in claim 1 specifies that the convex surface is conformed with the polarizing element.

A diligent review of section 6 on pages 3 and 4 of the Final Rejection do not indicate how or where the Examiner believes this claimed interrelationship is disclosed in Lettington or in Nikolov (it is possible that the Examiner intended his recitation of “means of support between the two elements” to indicate that not only is the polarizing element supported on the convex surface, but that the convex surface is somehow also conformed with the polarizing element, but the Examiner did not say this).

There is certainly no disclosure of any such “conforming” between the correlator and polarizer in Nikolov, nor would there need to be any such “conformal” interrelationship on the disclosed beamsplitter.

Because the Examiner has not demonstrated where this claimed interrelationship between correlator convex surface and the polarizer element, there again can be no *prima facie* case of obviousness under 35 USC §103.

Error #4. The Examiner fails to appreciate that the secondary reference to Nikolov actually teaches away from millimeter wave detection apparatus and in fact teaches visible light wavelengths and not a detection apparatus, but a beamsplitter

While the Examiner makes the conclusory statement that “one of ordinary skill in the art would have been motivated to modify the polarizing element of Lettington to focus radiation of the second polarizer in order to reduce light loss and maximize the use of the incident radiation,” this merely conclusory statement does not render obvious the combination of elements.

Lillington which relates to an MMW detection apparatus and Nikolov which relates to a visual light wavelength beamsplitter have virtually nothing in common, other than the fact that they

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involve lenses and optical radiation of dramatically different wavelengths. One is used as a detection apparatus and the other is used as a beamsplitter and/or combiner.

The Examiner has provided no evidence of record as to why one of ordinary skill in the art would want to try to combine elements from the two references in the manner of Applicants' claims. Therefore, not only are the references directed to different devices, they are not even in the same category. The Examiner has simply failed to meet his burden under the *KSR* decision of providing an explicit "analysis" of why one would seek to pick and choose parts of the two different references and then combine them in the manner of Applicants' independent claim 1. This failure to set out a *prima facie* case of obviousness is reversible error.

SUMMARY

As shown in the above table, there are structures and structural interrelationships which are recited in independent claim 1 which are simply missing from the cited Lillington and Nikolov combination of references. This fact alone establishes that the Examiner has failed to meet his burden of establishing a *prima facie* case of obviousness. Additionally, the Examiner's failure to provide any reason for picking and choosing elements from the references and then combining them in the manner of the present claims also suggests the impropriety of the rejection.

As a result of the above, there is simply no support for the rejection of Applicants' independent claim 1 (or claims dependent thereon) under 35 USC §103. Applicants respectfully request that the Pre-Appeal Panel find that the application is allowed on the existing claims and prosecution on the merits should be closed.